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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,713	08/04/2003	Antonio J. Montalvo	2550/183	5691
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EXAMINER				
PHAM, TUAN				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/633,713

**Applicant(s)**

MONTALVO, ANTONIO J.

**Examiner**

TUAN A. PHAM

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1, 3, 7, 9, 13, 15, 19, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al. (US Patent No.: 5,710,981, hereinafter, "Kim").**

**Regarding claims 1, 7, 13, and 19,** Kim teaches a method and a radio transmission power control circuit comprising (see figure 2):

a radio frequency (rf) down converter (see figure 2, down converter 46) that produces a down converter output (see figure 2, IF input amplifier 50) having a frequency equal to the frequency difference between a first down converter input based on a transmitted signal of a radio transmitter (see figure 2, output at amplifier 44) and a second down converter input based on a local oscillator signal (see figure 2, input from a local oscillator);

a receiver baseband circuit of a half-duplex radio transceiver that alternately transmits and receives radio signals (see figure 2, col.2, ln.40-65, col.10, ln.51-60), the

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receiver baseband circuit operating when the half-duplex radio transceiver is receiving to process received radio signals (see figure 2, receiver 12 receiver the signal from antenna 16, col.5, ln.28-67, col.6, ln.1-15) and when the half-duplex radio transceiver is transmitting to process the down converter output to produce a power signal representative of the transmitted signal (see figure 2, transmitter 14, col.5, ln.28-67, col.6, ln.1-15); and

a feedback control circuit that produces a transmitter gain control signal to control transmitted signal power so as to minimize the difference between the power signal and a power reference signal (read on reference adjustment parameter  $\alpha 1$ ) (see figure 2, transmitter power control 30, col.6, ln.1-40).

**Regarding claims 3, 9, 15, and 21**, Kim further teaches an analog-to-digital converter that converts the power signal to a representative digital power signal (see figure 2, sampler and buffer 56, col.5, ln.50-55); and wherein the feedback control circuit produces the transmitter gain control signal so as to minimize the difference between the digital power signal and the power reference signal (read on reference adjustment parameter  $\alpha 1$ ) (see figure 2, transmitter power control 30, col.6, ln.1-40).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 2, 4, 8, 10, 14, 16, 20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (US Patent No.: 5,710,981, hereinafter, "Kim") in view of Khan et al. (US Patent No.: 5,959,499, hereinafter, Khan").**

Regarding claims 2, 8, 14, and 20, Kim disclosed invention, but fails to disclose the local oscillator signal is used by the radio transmitter such that the transmitted signal has a frequency determined by the local oscillator signal. However, Khan teaches the local oscillator signal is used by the radio transmitter such that the transmitted signal has a frequency determined by the local oscillator signal (see figure 1, LO 22, col.2, ln.35-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Khan into view of Kim in order to provide a predistorted drive signal for a nonlinear transmission path as suggested by Khan at col.1, ln.30-33.

Regarding claims 4, 10, 16, and 22, Khan further teaches the first downconverter input is developed by a directional coupler that senses the transmitted signal (see figure 1, mixer 20, coupler 18).

6. **Claims 5-6, 11-12, 17-18, and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (US Patent No.: 5,710,981, hereinafter, "Kim") in view of Khan et al. (US Patent No.: 5,959,499, hereinafter, Khan") as applied to claims 1, 7, 13, and 19 above, and further in view of Haartseen (US Pub. No.: 2005/0048985).**

**Regarding claims 5, 11, 17, and 23**, Kim and Khan, in combination, fails to teach WLAN transceiver. However, Haartsen teaches such features (see claim 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Haartsen into view of Inamori and Khan in order to communicate in a short range.

**Regarding claims 6, 12, 18, and 24**, Haartsen further teaches time division duplex (see [0011]).

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Pham whose telephone number is

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(571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2618  
February 21, 2008  
Examiner

Supervisory Patent Examiner  
Technology Center 2600

/TUAN A PHAM/

/Matthew D. Anderson/  
Supervisory Patent Examiner, Art Unit 2618

Tuan Pham

